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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,050	02/05/2002	Yen-Kuang Chen	42390P13143	8359
8791	7590	10/14/2003	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD, SEVENTH FLOOR LOS ANGELES, CA 90025			WILLIAMS, HOWARD L	
			ART UNIT	PAPER NUMBER
			2819	

DATE MAILED: 10/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/068,050

Applicant(s)

CHEN ET AL.

Examiner

Howard L Williams

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- ☐ Interview Summary (PTO-413) Paper No(s). ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 11, 13-16 and 19-27 are rejected under 35 U.S.C. 102(b) as anticipated by Kim et al. (US 5,818,363). Kim discloses in figure 1 a version of run encoding found in the MPEG standards. Particularly Kim discloses examining the groups of coefficients (data) to determine groups of set data (non-zero coefficients), the number of zero coefficients uncovered are accumulated and coupled with the non-zero coefficients into a run, level pair. The value of the run indicating the position of the non-zero coefficient. Regarding claims 4, 5, 6, 7, 11 Kim does not disclose branching not related to the loop nor not branching with relation to the non-loop. Accordingly Kim seems to not be non-applicable. Regarding claim 14, Kim discloses a module to perform the coding.

Claim 1-11, 13-16 and 19-28 are rejected under 35 U.S.C. 102(e) as anticipated by Craver (US 6,529,554). Craver discloses the use of bitmasks to identify and track zero and non-zero vlaues of coefficients in a video stream buffered and read from storage and managed under processor control.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 18 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (US 5,818,363) in view of Kyser (US 3,678,259) or Craver (US 6,529,554) in view of Kyser (US 3,678,259). Kim does not go into great detail on how the number of zero bits are determined. Craver states that the comparison may be bit or byte based and then details the bitmask/BSF/BSR approaches. Kyser discloses one such byte-wide method which involves inverting the bits and subsequently summing the number of 1 bits. The combination of Kyser with Kim would have been obvious because the simultaneous processing would provide a decrease in time required to determine the result as compared to a serial bit by bit approach.

Claims 12, 17 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (US 5,818,363) in view of Hicks et al (US 6,516,330) or Craver (US 6,529,554) in view of Hicks et al (US 6,516,330). Kim does not go into great detail on how the number of zero bits are determined. Craver states that the comparison may be bit or byte-based. Hicks discloses in column 1 a lookup table approach which results in the processing becoming a series of memory accesses. Although Hicks notes that this process is not always desirable particularly for some system architectures, it remains a known approach. The combination of Kim or Craver with Hicks to show that look-up table approaches are known would have been obvious because depending on the


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content the memory access and resource requirement may be significantly faster than a serial approach.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jung (US RE37,507 E) discloses video module incorporating VLD and run length processing.

Any inquiry concerning this communication should be directed to Howard L. Williams at telephone number 703-308-1679.

9/30/03


Howard L. Williams
Primary Examiner
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